

# Mineral Industry Surveys

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## ALUMINUM IN JUNE 2016

Following recent smelter shutdowns, only two companies produced primary aluminum in the United States. Consequently, beginning in February 2016, monthly production data were withheld to avoid the release of proprietary data. At the end of June, approximately 750,000 metric tons per year of capacity was operating at primary aluminum smelters in the United States according to public statements by the two companies that own the smelters.

Total aluminum recovered from scrap in June 2016 was 297,000 metric tons (t), essentially unchanged from that recovered in May 2016 and in June 2015 (fig. 1, table 1). Of this, 171,000 t of aluminum was recovered from new scrap, essentially unchanged from the amount in the preceding month and slightly less than the amount recovered in June 2015, and 126,000 t was recovered from old scrap, unchanged from the amount recovered in the preceding month but slightly more than that in June 2015. Total aluminum recovered from scrap in the first 6 months of 2016 was 1,770,000 t, about 4% more than that recovered in the first 6 months of 2015.

## U.S. Trade

Total imports for consumption (table 8) for the first 6 months of 2016 increased by 12% compared with those for the same period in 2015. Imports of crude metal and alloys increased by 20%, imports of semifabricated materials decreased by 9%, and imports of scrap increased by 6%. Canada remained the leading import source of aluminum materials to the United States, supplying 48% of total aluminum imports in the first 6 months of the year, followed by Russia (13%), the United Arab Emirates (10%), and China (6%). Canada accounted for 54% of crude metal and alloy imports, 23% of semifabricated aluminum products imports, and 61% of scrap imports. China was the source of 31% of semifabricated imports.

Total aluminum exports (table 9) for the first half of 2016 decreased by 6% compared with those for the first 6 months of 2015. Exports of crude metal and scrap decreased by 13% each, and exports of semifabricated aluminum products increased by 4%. Mexico, China, and Canada were, in descending order of shipments, the major recipients of U.S. exports in the first 6 months of 2016.

## Prices and Stocks

The monthly average U.S. market price of primary aluminum ingot increased to \$0.797 per pound in June from \$0.786 per pound in May (fig. 2).

Inventories of primary aluminum in London Metal Exchange Ltd.-approved warehouses in the United States continued their downward trend, decreasing to 278,000 t at the end of June, their lowest level since September 2007.

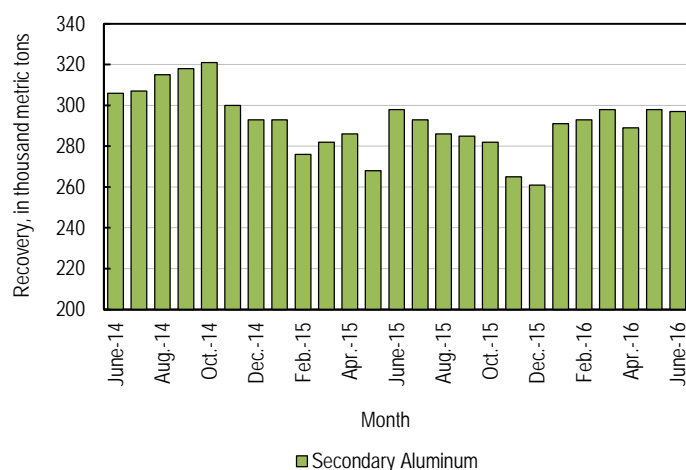
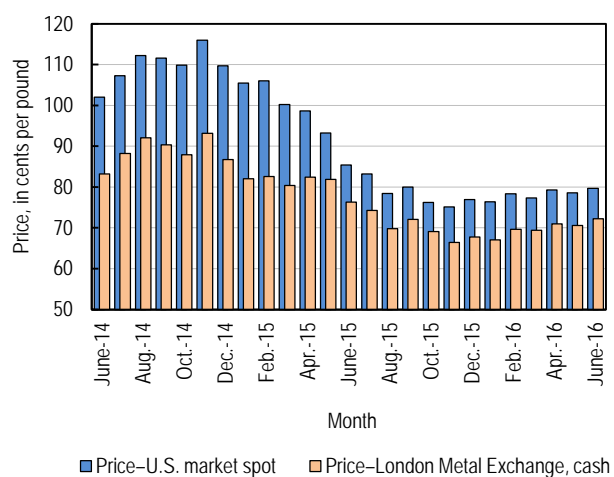


Figure 1. Monthly domestic secondary aluminum recovery from June 2014 through June 2016. Source: U.S. Geological Survey.



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Figure 2. Average monthly prices for primary aluminum from June 2014 through June 2016. Source: Platts Metals Week.

TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY<sup>1</sup>

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>2</sup>			Imports for consumption			Total new supply <sup>3</sup>	Stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2015 <sup>p</sup>	1,587	1,910	1,470	3,380	3,380	1,180	4,560	9,530	1,350
2015:									
June	133	174	123	298	301	100	401	832	1,350
July	134	162	131	293	301	100	401	828	1,380
August	135	161	126	286	251	89	339	761	1,320
September	128	161	124	285	283	87	370	784	1,310
October	128	157	126	282	270	88	358	769	1,320
November	121	153	112	265	267	85	353	739	1,350
December	113	151	110	261	259	87	346	721	1,350
January–June	827	962	740	1,700	1,750	643	2,390	4,920	1,370
2016:									
January	106	172	119	291	362	91	453	850	1,340
February	W	169	123	293	270	89	359	652 <sup>5</sup>	1,370
March	W	172	126	298	385	96	481	779 <sup>5</sup>	1,330
April	W	167	122	289	350	97	447	736 <sup>5</sup>	1,300 <sup>r</sup>
May	W	172	126	298	336	107	443	740 <sup>5</sup>	1,280
June	W	171	126	297	401	104	505	802 <sup>5</sup>	NA
January–June	W	1,020	742	1,770	2,100	584	2,690	4,450 <sup>5</sup>	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

<sup>1</sup>Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

<sup>2</sup>Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

<sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>4</sup>Inventory levels reflect total for both U.S. and Canadian producers; data from the Aluminum Association Inc.

<sup>5</sup>Excludes primary production.

TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM  
PURCHASED NEW AND OLD ALUMINUM SCRAP<sup>1</sup>

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery
2015 <sup>p</sup>	1,980	1,510	1,930	1,760	117	103	3	3	4,030	3,380
2015:										
June	166	126	178	163	10	9	(2)	(2)	354	298
July	167	127	173	158	10	9	(2)	(2)	349	293
August	166	126	166	151	10	9	(2)	(2)	342	286
September	167	127	163	149	10	9	(2)	(2)	341	285
October	166	126	162	148	10	9	(2)	(2)	338	282
November	165	125	144	132	10	9	(2)	(2)	319	265
December	163	124	140	128	10	9	(2)	(2)	313	261
January–June	989	752	982	896	58	52	2	2	2,030	1,700
2016:										
January	181	139	157	144	8	8	(2)	(2)	348	291
February	180	138	160	147	8	8	(2)	(2)	349	293
March	185	140	163	149	8	8	(2)	(2)	357	298
April	183	140	154	141	8	8	(2)	(2)	346	289
May	185	142	162	148	8	8	(2)	(2)	356	298
June	185	141	162	149	8	8	(2)	(2)	356	297
January–June	1,100	839	959	878	51	46	2	2	2,110	1,770

<sup>p</sup>Preliminary.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN JUNE 2016<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	154,000	185,000	117,000	141,000
Independent mill fabricators	148,000	162,000	136,000	149,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	301	361	301	361
Total	310,000	356,000	259,000	297,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED  
PIG IN JUNE 2016<sup>1</sup>

(Metric tons)

	June				January–June <sup>2</sup>	
	Stocks, opening <sup>2</sup>	Net receipts <sup>3</sup>	Melted or consumed	Stocks, closing	Net receipts <sup>3</sup>	Melted or consumed
New scrap:						
Extrusion	13,200	57,400	57,300	13,300	330,000	331,000
Can stock clippings	6,940	18,800	18,800	6,990	121,000	121,000
Other wrought sheet/clippings	7,000	53,400	51,900	8,480	308,000	314,000
Casting	2,980	6,800	7,220	2,560	40,200	40,300
Borings and turnings	2,740	9,000	8,890	2,860	55,500	55,600
Dross and skimmings	7,130	40,500	40,500	7,130	235,000	235,000
Total new scrap	40,000	186,000	185,000	41,300	1,090,000	1,100,000
Old scrap:						
Used castings	6,820	23,300	23,200	6,950	133,000	133,000
Used extrusion	6,920	14,700	14,800	6,820	86,700	89,800
Used cans (shredded, loose, baled)	5,800	51,900	52,500	5,230	310,000	310,000
Other wrought products	18,400	28,200	28,100	18,500	163,000	168,000
Fragmentized shredder (auto shredder)	2,600	6,700	6,600	2,700	37,700	37,900
Total old scrap	40,600	125,000	125,000	40,200	731,000	739,000
Sweated pig	183	151	151	183	907	907
Total all classes	80,700	311,000	310,000	81,700	1,820,000	1,840,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED  
STATES IN JUNE 2016<sup>1,2</sup>

(Metric tons)

	June				January–June <sup>3</sup>	
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	3,460	2,880	2,960	3,380	17,300	18,000
380 and variations	7,890	12,900	12,900	7,890	77,100	77,100
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,690	4,160	4,160	1,690	24,900	24,900
No. 319 and variations	3,260	6,880	6,880	3,260	41,300	41,300
F-132 alloy and variations	714	352	352	714	2,110	2,110
Al-Zn alloys	477	178	178	477	1,070	1,070
Al-Si alloys (0.6% to 2.0% Cu)	150	233	233	150	1,400	1,400
Al-Cu alloys (1.5% Si, max.)	148	72	72	148	431	431
Other <sup>4</sup>	7,370	5,780	4,960	8,190	36,300	31,500
Wrought alloys, extrusion billets	22,800	63,100	63,700	22,200	376,000	376,000
Total all alloys	48,000	96,500	96,400	48,100	578,000	573,000
Less:						
Primary aluminum consumed	XX	18,500	XX	XX	108,000	XX
Primary silicon consumed	XX	2,050	XX	XX	12,500	XX
Other alloying ingredients consumed	XX	1,080	XX	XX	7,340	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot <sup>5</sup>	XX	74,900	XX	XX	450,000	XX

XX Not applicable.

<sup>1</sup>Excludes integrated aluminum companies.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>5</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES  
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2015:		
June	85.420	76.348
July	83.217	74.287
August	78.388	69.828
September	79.989	72.053
October	76.227	69.112
November	75.155	66.469
December	76.905	67.762
January–December	88.244	75.426
2016:		
January	76.350	67.090
February	78.345	69.637
March	77.345	69.409
April	79.274	70.940
May	78.563	70.577
June	79.693	72.204
January–June	78.262	69.976

Source: Platts Metals Week.

TABLE 7  
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet	Old cast	Turnings (clean and dry)
2015:					
June	56.14	60.14	57.59	60.14	59.14
July	57.86	58.50	55.91	59.45	51.91
August	58.00	56.10	52.33	56.33	49.57
September	60.24	54.52	50.62	54.42	49.33
October	59.30	52.39	49.00	53.00	47.91
November	56.84	51.00	47.74	52.08	47.00
December	59.89	51.59	47.36	52.36	47.36
January–December	65.09	61.04	57.20	60.12	55.94
2016:					
January	60.63	54.00	49.74	54.32	49.74
February	61.60	54.85	50.90	55.00	51.10
March	59.87	56.00	52.91	55.91	52.91
April	60.71	57.00	53.14	56.48	53.57
May	59.90	58.00	55.14	57.93	56.79
June	60.36	58.50	55.86	58.00	56.39
January–June	60.51	56.39	52.95	56.27	53.42

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN JUNE 2016<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	June	January– June	June	January– June	June	January– June	June	January– June
Argentina	17,500	77,600	--	--	--	15	17,500	77,600
Australia	225	4,580	12	106	105	893	342	5,580
Austria	--	13	2,290	16,100	131	889	2,420	17,000
Bahamas, The	--	--	--	--	103	843	103	843
Bahrain	8,260	60,400	5,220	26,700	--	--	13,500	87,100
Belgium	108	595	410	2,990	--	--	518	3,590
Brazil	3,940	17,900	1,520	7,080	5,580	10,700	11,000	35,700
Canada	190,000	1,130,000	20,800	131,000	31,700	178,000	243,000	1,440,000
Chile	--	--	--	--	475	2,040	475	2,040
China	211	818	35,400	180,000	15	394	35,600	181,000
Colombia	--	--	534	3,150	97	321	631	3,470
Costa Rica	--	--	(2)	1	196	1,560	196	1,560
El Salvador	--	--	27	141	251	1,310	278	1,450
France	910	5,490	1,950	8,440	--	995	2,860	14,900
Germany	232	609	5,550	33,900	50	428	5,840	34,900
Greece	--	--	1,890	9,090	--	20	1,890	9,110
Guatemala	--	--	--	--	1,100	4,330	1,100	4,330
Honduras	--	--	--	--	20	192	20	192
Hong Kong	--	--	200	1,840	--	--	200	1,840
India	1,500	15,000	2,780	15,400	--	51	4,280	30,400
Indonesia	--	--	2,950	17,400	--	--	2,950	17,400
Italy	--	548	1,010	5,880	39	108	1,050	6,530
Japan	--	--	3,000	14,300	11	358	3,010	14,700
Korea, Republic of	268	5,380	1,570	9,190	1,430	3,530	3,270	18,100
Malaysia	2	1,060	509	2,980	--	64	511	4,110
Mexico	759	5,170	3,620	22,600	10,400	59,100	14,800	87,000
New Zealand	114	6,260	(2)	(2)	--	(2)	114	6,260
Norway	58	6,800	14	28	--	--	72	6,830
Qatar	12,800	55,300	--	--	--	--	12,800	55,300
Romania	--	2	368	2,120	--	--	368	2,120
Russia	91,500	366,000	1,770	7,550	--	--	93,200	373,000
Saudi Arabia	4,580	28,000	--	--	--	142	4,580	28,100
South Africa	3,040	8,970	2,820	27,600	--	77	5,850	36,700
Sweden	16	16	564	3,290	--	--	580	3,310
Switzerland	--	--	109	505	--	40	109	545
Taiwan	18	115	673	3,200	395	1,830	1,090	5,140
United Arab Emirates	60,700	286,000	--	--	70	1,100	60,700	287,000
United Kingdom	65	452	1,030	5,760	483	2,680	1,570	8,890
Venezuela	2,860	20,800	--	466	26	3,290	2,890	24,600
Other	915	3,800	5,380	24,900	3,090	17,000	9,390	45,600
Total	401,000	2,100,000	104,000	584,000	55,800	293,000	561,000	2,980,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.



TABLE 9  
U.S. EXPORTS OF ALUMINUM IN JUNE 2016<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	June	January– June	June	January– June	June	January– June	June	January– June
Australia	41	100	215	818	--	2	256	920
Belgium	--	28	128	700	505	1,790	633	2,520
Brazil	--	21	512	2,720	--	35	512	2,780
Canada	6,390	48,500	37,100	225,000	9,800	58,000	53,300	331,000
Chile	--	5	18	130	--	42	18	177
China	42	216	4,030	17,100	56,400	339,000	60,500	356,000
Colombia	--	6	156	1,170	7	42	163	1,220
France	381	2,750	746	4,770	101	1,280	1,230	8,800
Germany	186	730	557	3,730	541	2,120	1,280	6,580
Guatemala	7	9	1,660	9,460	--	21	1,670	9,490
Hong Kong	1	2	118	970	4,350	20,600	4,470	21,600
India	(2)	38	107	720	7,650	28,200	7,750	29,000
Indonesia	--	5	92	335	1,850	11,600	1,950	11,900
Ireland	2	10	19	444	--	--	21	454
Israel	1	26	431	4,250	--	--	432	4,270
Italy	1	29	112	1,190	--	23	113	1,240
Japan	109	789	2,330	13,800	1,540	9,010	3,980	23,600
Jordan	--	(2)	--	1,060	--	--	--	1,060
Korea, Republic of	33	401	2,550	17,400	11,400	65,300	14,000	83,200
Kuwait	--	--	358	3,070	--	--	358	3,070
Malaysia	1	17	337	1,780	4,240	21,100	4,580	22,900
Mexico	11,100	82,900	33,100	221,000	10,500	63,600	54,700	368,000
Netherlands	1	20	370	1,910	3	123	374	2,060
New Zealand	--	-2	51	483	1	3	52	486
Norway	2	32	(2)	23	--	--	2	55
Pakistan	--	--	2	8	1,240	5,810	1,240	5,820
Panama	--	(2)	529	3,380	--	4	529	3,380
Romania	2	20	22	188	--	--	24	208
Saudi Arabia	(2)	7	779	3,810	--	--	779	3,810
Singapore	7	56	144	1,330	--	--	151	1,390
Spain	3	5	160	1,230	--	78	163	1,310
Taiwan	203	1,170	591	2,610	3,260	15,800	4,050	19,600
Thailand	--	(2)	352	2,980	61	1,130	413	4,110
Tunisia	--	--	64	215	--	--	64	215
Turkey	--	3	342	1,680	13	44	355	1,730
United Arab Emirates	--	4	656	3,580	20	322	676	3,910
United Kingdom	42	299	984	7,610	217	826	1,240	8,740
Vietnam	29	123	10,700	15,600	1,010	4,220	11,800	19,900
Other	150	664	1,110	6,330	763	4,610	2,020	11,600
Total	18,700	139,000	102,000	585,000	116,000	655,000	236,000	1,380,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.